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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/823,631      | 04/14/2004  | Toru Nishikawa       | 018976-224          | 4626             |

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BURNS DOANE SWECKER & MATHIS L L P  
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ALEXANDRIA, VA 22313-1404

EXAMINER


SHAKERI, HADI

ART UNIT PAPER NUMBER

3723

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                               |   |  |
|------------------------------|-------------------------------|---|--|
| <b>Office Action Summary</b> | Application No.<br>10/823,631 | Applicant(s)<br>NISHIKAWA ET AL.  |  |
|                              | Examiner<br>Hadi Shakeri      | Art Unit<br>3723  |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

Art Unit: 3723

**DETAILED ACTION*****Information Disclosure Statement***

1. The information disclosure statement filed 04/14/04 fails to comply with 37 CFR 1.98(a)(1), which requires a list of all patents, publications, or other information submitted for consideration by the Office. It has been placed in the application file, but the information referred to therein has not been considered. The foreign patent does not include English translation. The US references were cited in the parent application.

***Claim Rejections - 35 USC § 102***

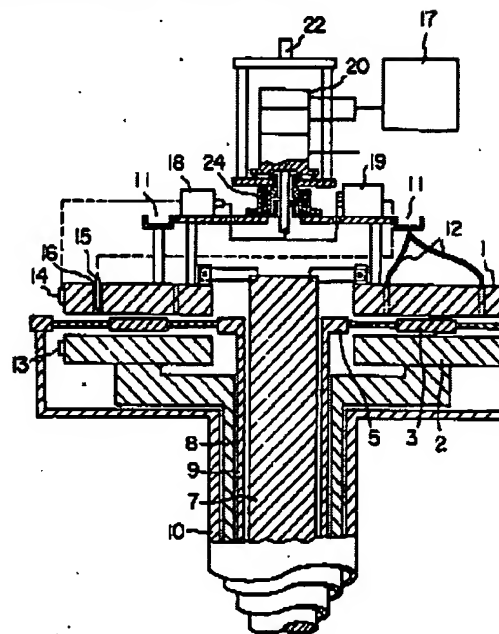
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Katagiri et al., US Patent No. 4,433,510.

Katagiri et al. discloses all the limitations of claim 1, i.e., upper and lower wheel (1) (2), non-contact type displacement detection means (13-17) joined to the upper wheel, reference table (13 and/or the upper surface of the lower wheel) arranged opposing the probe and integrally fixed connected to the lower wheel (2), wherein the wafer is polished by the relative speed between the workpiece and at least one of the upper and lower wheels.



(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

As admitted by the Applicant, pages 1-4, the polishing apparatus disclosed in Fig. 6,

It would have been obvious to one of ordinary skill in the art, at the time the invention

was made, to modify the invention of AAPA with the reference table fixedly attached to the lower wheel in view of Katagiri et al. to prevent errors due to undulated revolution of the surfaces, vibration and the like.

Art Unit: 3723

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over prior art (Katagiri et al. and AAPA in view of Katagiri) as applied to claim 1, above further in view of JP 11-77521.

Prior art as noted above (sections 2 and 4) meets all the limitations of claim 3, except for disclosing non-contact displacement detection means comprising light emitting and receiving units. JP '521 teaches contact and non-contact type positioning means, wherein the non-contact positioning means comprises emitting and receiving units (24a) and (24b), Figs. 3 and 4. It is known in the art, as shown by JP' 521, to use both contact and non-contact positioning means. The two are art recognized functional equivalents. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify AAPA by replacing the displacement detection means, in view of JP' 521, as the two are art recognized functional equivalents.

### ***Response to Arguments***

7. In response to Applicant's arguments filed on 03/05/2004 in the parent application, is noted that a gap detection means as recited in the cited reference includes both positioning means (13, 14) and the sensor (15) which more accurately detects the position of the lower wheel to the upper and thus a thickness of the workpiece as indicated, e.g., 05:05-20, it is not clear how this means does not meet the "displacement-detection" means as recited in the claims, lacking any structure and/or means plus function to read otherwise.

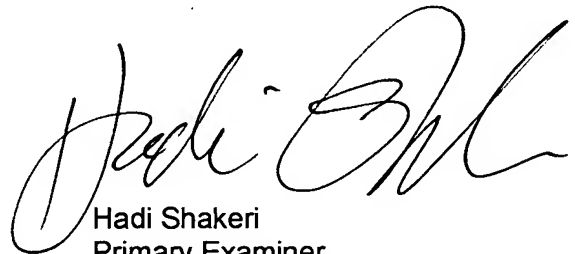
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hadi Shakeri whose telephone number is (571) 272-4495. The examiner can normally be reached on Monday-Friday.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3723

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Hadi Shakeri', is positioned above the printed name and title.

Hadi Shakeri  
Primary Examiner  
Art Unit 3723  
December 11, 2004